EXHIBIT A - Whalen Affidavit

EXHIBIT A - Whalen Affidavit

Taggart & Taggart, Ltd.
108 North Minnesota Street
Carson City, Nevada 89703
(775) 882-9900 - Telephone
(775) 883-9900 - Facsimile

AFFIDAVIT OF DAVID WHALEN, P.E., C.E.M.

STATE OF NEVADA)
)ss.
COUNTY OF LYON)

Affiant, David Whalen, being first duly sworn, deposes and says:

1. I am over the age of 18, competent to testify to the following, and make this testimony based on my own personal knowledge.

2. I am registered in the State of Nevada as both a Professional Engineer ("P.E.") and a Certified Environmental Manager ("C.E.M.").

3. I hold a Bachelor of Science Degree in Geology from the State University of New York ("SUNY") at Albany and have 25 years of experience in consulting engineering and public service.

4. I am currently employed as the Public Works Director for the City of Fernley.

5. I have reviewed the proposed Truckee Canal XM Project Environmental Impact Statement ("EIS") and the Record of Decision adopting the EIS's preferred alternative.

6. During the EIS Process the City of Fernley engaged the services of Gregory Pohl, PhD., from the Desert Research Institute ("DRI") to perform groundwater modeling simulations of the effects of the proposed Truckee Canal lining project on groundwater levels in the Fernley basin.

7. I have reviewed Dr. Pohl's model simulations and analysis.

8. Dr. Pohl's analysis indicates that lining the Truckee Canal will result in a significant drop in groundwater levels of more than 90 feet over a 40-year period.

9. On April 13, 2020, I authored a Memo (the "April 13th Memo") to Fernley City Manager, Daphne Hooper, in which I expressed concerns that the significant lowering of the water table identified by Dr. Pohl's model simulations and analysis is likely to result in significant and damaging land subsident in the Fernley area.

10. In the April 13th Memo, I further noted that documented Holocene faults in Fernley are likely to activate in response to the lowering of the groundwater table and could result in significant

damage to City-owned infrastructure and roadway networks (as well as utility facilities owned and operated by private entities).

11. At my request, the April 13th Memo was submitted to the Bureau of Reclamation as an attachment to the City of Fernley's comments on the draft EIS.

12. In addition to the April 13th Memo, on April 20, 2020, the City of Fernley submitted comments to the draft EIS which expressed concern that the significant drop in groundwater levels caused by the project will result in land subsidence which could damage historic buildings and structures in Fernley (the Fernley and Lassen Railway Depot and the Fernley Community Church) which are located in areas that Dr. Pohl's model simulations show will experience significant groundwater level declines.

13. As an environmental professional, I am familiar with the regulations governing the preparation of environmental impact statements.

14. Pursuant to 40 CFR § 1502.16, an EIS must evaluate all environmental impacts of a proposed action and "the significance of those impacts."

15. Pursuant to 40 C.F.R. § 1502.23, an agency must utilize "reliable existing data and resources" including "statistical models" to evaluate the significance of the environmental impacts associated with project alternatives.

16. As an environmental professional I believe the DRI's groundwater model for the Fernley area represents the best and most reliable scientific tool to evaluate the significance and magnitude of the proposed project on the Fernley groundwater aquifer.

17. I have personal knowledge that at the time the Bureau of Reclamation was developing and preparing the EIS, it knew of and had access to the DRI groundwater model.

18. Despite the City of Fernley's repeated requests to utilize the DRI groundwater model to evaluate the impact that project alternatives would have on the aquifer, the Bureau of Reclamation never did so.

19. After reviewing the final EIS, issued in September 2020, I have been unable to locate any analysis quantifying the magnitude of the canal lining impacts on the groundwater aquifer (i.e. how far and how fast water levels will decline) performed by the Bureau of Reclamation.

Taggart & Taggart, Ltd.
108 North Minnesota Street
Carson City, Nevada 89703
(775) 882-9900 – Telephone
(775) 883-9900 – Facsimile

20. The September 2020 EIS also fails to include any analysis of the impacts that project alternatives will have on land subsidence outside the limits of the project itself.

21. The method of analysis for project impacts on soils and geology is found in Appendix E, Section 6 of the EIS.

22. Appendix E, Section 6 indicates that the "region of influence" for the geologic and soils analysis was strictly limited to the "Project Area."

23. Figure 1-1 in Appendix C identifies the "Project Area" as including only a "100-foot buffer from the centerline of the 31-mile Canal", project staging areas, and two project detention basins.

24. Thus, despite awareness of the potential land subsidence impacts raised in my April 13th Memo and the City of Fernley's April 20, 2020, comments, the Bureau of Reclamation's September 2020 EIS failed to analyze or determine the significance of any impacts to geology or soils (like land subsidence resulting from declining water levels) in the Fernley area located outside of the limited "Project Area" – the Canal itself.

25. In addition to land subsidence issues, the EIS also failed to study the long-term effects that a decline in groundwater levels may have on phreatophyte vegetation in Fenley, the resultant dust and air quality impacts that may result from any loss of vegetation, or the impacts that lowered groundwater levels will have on the concentration of harmful contaminants (like arsenic and radionuclides) in the groundwater supply.

26. In my expert opinion, as both a Professional Engineer and Certified Environmental Manager, the Bureau of Reclamation's failure to (1) quantify the level of groundwater declines, (2) fully analyze the potential for land subsidence damage to City infrastructure and historic buildings, (3) use the DRI groundwater model in its impacts analysis, and/or (4) fully investigate the impacts that groundwater level declines will have on phreatophyte vegetation and groundwater quality, violates both the letter and intent of 40 CFR §§ 1502.16 and 1502.23.

//

//

//

//

Taggart & Taggart, Ltd.
108 North Minnesota Street
Carson City, Nevada 89703
(775) 882-9900 – Telephone
(775) 883-9900 – Facsimile

27. Further affiant sayeth naught.

DATED this 19th day of May, 2023.

DAVID WHALEN, P.E., C.E.M.

SIGNED AND SWORN to before me this 19 day of May, 2023, by David Whalen, proven to me on the basis of satisfactory evidence to be the person who appeared before me.

NOTARY PUBLIC

KIMBERLY SWANSON
Notary Public - State of Nevada
Appointment Recorded in Lyon County
No. 05-99130-12 - Expires April 20, 2026

Taggart & Taggart, Ltd.
108 North Minnesota Street
Carson City, Nevada 89703
(775) 882-9900 - Telephone
(775) 883-9900 - Facsimile